

apparently, largely based upon the experience of the authors as science teachers in schools, it is presumably intended for a higher grade of instruction than that usually given to schoolboys. Indeed, the authors, at times, think it unnecessary to mention certain elementary matters, for the reason that they are probably already known to beginners. They have, however, not been very consistent in this respect. Very elementary things are occasionally treated at considerable length, and space is thereby sacrificed to comparatively unimportant subjects which might well have been devoted to fuller details of more advanced or more difficult matters. The work, in fact, suffers from a lack of a sense of proportion; it bears marks of haste in preparation, as if the authors had not thought out with sufficient care the details of their scheme. The general plan of the work is excellent, but it would be quite impossible for any student, however hard-working, to overtake the whole within the period usually allotted to his training. The time given to the preparation of substances, if he is expected to make any considerable proportion of those enumerated, would alone consume a large fraction of it.

Under the direction of a capable teacher the book is calculated to be of service, if judiciously used, as a laboratory manual. Anyone who had worked through it, with due attention to its directions, would be well equipped with a knowledge and experience of operative chemistry.

(3) The little work on "Public Health Chemical Analysis," by Mr. R. C. Frederick and Dr. Aquila Forster, is apparently designed for the use of the Medical Officer of Health who may be called upon to make analytical inquiries, or may desire to inform himself of the methods employed by the Public Analyst in connection with matters with which he is directly concerned. After a somewhat bald introduction on the general principles of gravimetric and volumetric analysis, the book deals with such subjects as the chemical examination of air, water, sewage, trade waste, and effluents; the analysis of ordinary foods, such as milk and milk-products, flour, bread, sugars, jams, confectionery, proprietary foods, alcoholic liquors, tea, coffee, cocoa, and condiments; the detection of metallic poisons in foodstuffs; disinfectants; soap; rag flock, etc. The methods described are those in common use by analysts, and present no features of novelty. They may be accepted as trustworthy, and well within the competence of an officer who may only occasionally be required to undertake them. The book is well printed, adequately illustrated, and provided with a good index.

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The Nature of Man.

The Origin of Man and of his Superstitions. By Carveth Read. Pp. xii+350. (Cambridge: At the University Press, 1920.) 18s. net.

ONE of the legacies left by the Darwinian controversy has been an intense interest in the highly speculative questions centring round the transition that took place from our semi-human to our human ancestry. The subject has an intense fascination for many, and they will find ample room for the exercise of their imagination while reading the mass of material brought together by the author in support of his hypothesis. He assumes that our early ancestors were large anthropoid apes which took to hunting and a more carnivorous diet, and thus changed profoundly their "former, peaceable, frugivorous habit." Thus there was a selection of those qualities most effective for hunting game. Some of the Primates used unwrought weapons, co-operated in defence, and could communicate with each other—e.g. the early hunters went in packs, and thus resembled wolves; indeed, man "became at first a sort of wolf-ape."

In the course of his reflections upon the nature of man the author concludes that "man, in character, is more like a wolf or dog than he is like any other animal." Hence "the Nordic sub-race [of the Mediterranean, we may suppose], with its fair hair, . . . has the appearance of an Arctic beast of prey, like the polar bear." The adoption of a hunting life had many consequences: each pack had its own hunting ground; hence the idea of property; co-operative hunting increased intelligence. The "constructive impulse" thereby became an "absorbing passion," and the use of language was stimulated. The first wars, probably, were waged for hunting grounds; thus the more "virile" and compact of the "wolf-ape" packs predominated, and presumably led to that triumph of Nature, the "Arctic beast of prey"—the Nordic sub-race. Sports and games have been stimulated by the hunting life. Further, "I offer the suggestion that the origin of laughter and the enjoyment of broad humour . . . may be traced to . . . occasions of riotous exhilaration and licence" following on a successful hunt. Hunting life does not explain, says the author, the origin of magnanimity, friendliness, etc.

Mr. Read then turns to the origins of beliefs.

"Savages of the lowest culture have few beliefs that can be called positively injurious. . . . Taboos do more good by protecting person, property, and custom than they do harm by restricting the use of foods. . . . Many rites and observances are sanitary. Totemism rarely does any harm, and

may once have symbolised usefully the unity of social groups. Totemic and magical dances give excellent physical training, promote the spirit of co-operation, are a sort of drill . . ."

The hunting pack fell to pieces owing to a variety of causes, but the situation was saved by the rise of magic—due to a "belief in mysterious forces and from confusing coincidence with causation"—and the magician or wizard, who kept the group together by his power to "make the boldest tribesmen quail." This process of consolidation was helped on by the growth of animism—"a confusion between dreams and objective experience"—and the strengthening of the power of ruling families. The rest of the book is occupied with a discussion on more or less conventional lines of the origins of belief. The author examines the various theories of Frazer, Tylor, Lang, and others, but it is not easy to see where lies the real connection between this and the opening parts of the book.

It is difficult to express an opinion in a few words on an argument which deals with matters mainly beyond our ken. Discussions can scarcely be termed "scientific" that begin with wholly hypothetical stages of society such as the hunting pack of "wolf-apes." The author evidently has not studied the actual facts concerning hunters, or he would have seen that his theory breaks down for the reason that existing hunting peoples approximate more closely to the higher anthropoid apes than to his hypothetical wolf-apes. Moreover, what evidence has he that early man was warlike, or that he went about in packs?

The book has several misprints: p. v., 1805 for 1905; p. 296, Puranas for Punan, Boschmans for Bushmen; p. 61, Battus, ? Battas of Sumatra. The author is also given to repetition—e.g. on pp. 2, 28, and 32 he tells us that anthropoids "occasionally eat birds' eggs and young birds; the gorilla has been said to eat small mammals."

W. J. PERRY.

Principles and Practice of Psychotherapy.

Psychology and Psychotherapy. By Dr. W. Brown. With a Foreword by Dr. W. A. Turner. Pp. xi+196. (London: Edward Arnold, 1921.) 8s. 6d. net.

INTO this small book Dr. W. Brown has succeeded in packing a great deal of information on a subject which is now attracting widespread attention. In his preface he enters a timely warning, which is supported by Dr. W. A. Turner in his foreword, that an essential pre-requisite for the practice of psychotherapy is a sound know-

ledge of general medicine, and particularly of neurology and psychiatry.

Dr. Brown has attempted to crowd so much into such a small compass that rather abrupt changes of theme somewhat interfere with the progressive development of a guiding line of thought. The early chapters discuss in a lucid manner the mechanism of dissociation and repression, which introduces us to the conception of the unconscious and the interpretation of dreams. Much consideration is devoted to the views of Freud, and Dr. Brown indicates clearly where and why he cannot altogether accept them. The section dealing with emotions is rather scanty for so important a subject, and here, perhaps, Freud's views are too summarily dismissed. A special section is allotted to the psychoneuroses of war; the great value of this contribution lies in the fact that Dr. Brown had unsurpassed opportunities for studying both the very early cases immediately behind the line in France, and later the more chronic cases which were met with in the special neurological hospitals at home. This twofold experience enables him to point out certain differences in type and to emphasise the great importance of early treatment in mental disturbances.

Dr. Brown has already published, in various medical journals, many articles dealing with his views on the principles underlying psychotherapy, and in this volume he seeks to crystallise them. He considers that there are four relatively independent factors at work, namely, psychocatharsis or abreaction, psychosynthesis or reassociation, autognosis or self-knowledge, and finally the personal influence of the physician. On the first of these factors he lays great stress, but indicates that the essential aim of them all is self-knowledge. He seems to have coined the term "autognosis" to designate a therapeutic process consisting of a small amount of mental exploration combined with a great deal of explanation and persuasion. Certainly no Freudian would allow that it is in any way comparable to a psychoanalysis.

The last section of the book is a most interesting little discourse on that bugbear of philosophy, the interrelationship of body and mind. Though he does not definitely commit himself, it would appear that Dr. Brown leans more to the theory of Bergson as unfolded in "Matter and Memory" than to any of the alternatives. He makes no mention of the more recent thoroughly monistic system of Kempf.

It is, however, not a little surprising to find that Dr. Brown refers to telepathy in terms which would imply that it is no longer a debatable